DERIVATIVES OVERVIEW

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DERIVATIVES

Session Objectives

- Meaning of Derivatives
- Need for Derivatives
- Meaning of Forward, Futures, Options and Swaps
- Difference between Futures and Forwards
- Advantages of the Futures Markets
- Concept of Margins and Open Interest in Futures Trading

DERIVATIVES

Derivative instrument is one whose value depends on (is derived) from the value of something else. Underlying asset could be :

- **Commodities like Grain, coffee, oilseeds etc**
- **Precious Metals like gold, silver etc**
- **Foreign exchange**
- **Bonds, T- bills**
- **OTC products (loan / deposits)**
- **Equity products like shares, index**

NEED FOR DERIVATIVES

- **MARKET COMPLETENESS**
- **SPECULATION**
- **RISK MANAGEMENT**
- **TRADING EFFICIENCY**

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NEED FOR DERIVATIVES

- **Offer simple, cost-efficient risk hedging solutions for all types of markets :**
    - Commodities Markets
    - Money Markets
    - Insurance Markets
    - Stock Markets

- **Non – availability of hedging facility -** Severe handicap for companies /institutions operating in India

- **Countries not providing globally accepted risk – hedging facilities :** Disadvantaged in today's rapidly integrating global economy

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TYPES OF DERIVATIVES

- FORWARD CONTRACTS
- FUTURE CONTRACTS
- OPTIONS
    - Call
    - Put
- SWAPS
    - Interest rate swaps
    - Currency swaps
    - Commodity Swaps

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TYPES OF DERIVATIVES

- **FORWARD CONTRACT**

  An agreement between two entities to buy or sell the underlying asset at a future date at a pre-agreed price

- **FUTURE CONTRACT**

  An agreement between two parties to buy or sell the underlying asset at a future date at today's future price. Future contracts differ from forward contracts in the sense that they are standardised and exchange traded

All future contracts are forward contracts but not all forward contracts are future contracts

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TYPES OF DERIVATIVES

OPTIONS

Not the obligation

A contract that gives the buyer the buyer the right to buy or sell a specified commodity or other instrument at a specific price within a specified period of time regardless of the market price of the instrument

TYPES OF DERIVATIVES : OPTION TERMINOLOGY

- **CALL OPTION : RIGHT TO BUY**
- **PUT OPTION : RIGHT TO SELL**
- Option contract will specify
  - NAME OF THE COMMODITY to be bought or sold
  - AMOUNT OF COMMODITY that can be bought or sold
  - Purchase or sale price for the commodity known as STRIKE OR EXERCISE PRICE
  - EXPIRATION DATE : When the right to buy or sell expires
- **WRITER**
- **OPTION PREMIUM**
- **AMERICAN AND EUROPEAN OPTION**

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TYPES OF DERIVATIVES : SWAPS

- **Swaps** are private agreements between two parties to exchange cash flows in future according to a prearranged formula. The commonly used swaps are:
  - ***Interest Rate Swaps*** : These entail swapping only the interest related cash flows between the parties in the same currency.
  - ***Currency Swaps***: These entail swapping both principal and interest between the parties, with cash flows in one direction being in a different currency than those in the opposite direction.

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FORWARDS vs FUTURES

	FORWARDS	FUTURES
Location of Trade	Buyer and Seller determined usually through brokerage house	Commodity Exchange
Price Determination	Negotiated usually private	Market determined publicly available
Parties conducting transaction	Buyer and Seller usually through commodity broker	Commodity brokers, guaranteed through clearing house
Delivery of Goods	Commitment to make / take delivery at a specified date	Commitment to make / take delivery at a specified date (usually position closed before delivery date)

FORWARDS vs FUTURES

	FORWARDS	FUTURES
Sale Specifications	Usually transaction specific	Standardized
Payment	Payment transfer at a specified date, usually at maturity (i.e. against transfer of goods)	Initial deposit required, daily margin calls, full remaining payment at maturity if delivery accepted
Risk of Default	Entirely dependent on the reliability of other party	Transaction guaranteed by the clearing house

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ECONOMIC BENEFITS FROM USING COMMODITY FUTURES MARKETS

- **Price Discovery and Hedging**
- **Improve Export Competitiveness**
- **Reduce Processing Margin Risks**
- **Farmers Benefit Indirectly Through Better Information**
- **Facilitate Access to Credit**
- **Improve Product Standards**

ECONOMIC BENEFITS FROM USING COMMODITY FUTURES MARKETS

Commodity futures not only play an important role in **price discovery** and **managing price risks**, but they also assume other economic roles: **financial stability for market operators**, **standardization of quality for deliverable commodities**, **flexibility for traders and processors** by replacing the need for storage, **providing new market outlets**, **reduction of storage costs** and **finally improved access to finance**

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FUTURES MARKETS : CONCEPT OF MARGIN

- A margin is cash or marketable securities deposited by an investor with his or her broker
- The balance in the margin account is adjusted to reflect daily settlement
- Margins minimize the possibility of a loss through a default on a contract
- The margin levels are set by the exchange based on volatility (market conditions) and can be changed at any time.
- Different types of Margin:
  - Initial margin
  - Maintenance margin
  - Variation Margin

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SOME TERMINOLOGY ABOUT FUTURES

- **Open interest:** the total number of contracts outstanding
  - equal to number of long positions or number of short positions
- **Settlement price:** the price used for the daily settlement process
- **Volume of trading**: the number of trades in 1 day

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COMMODITY AND FINANCIAL DERIVATIVES

- **Physical Settlement**
- **Warehousing**
- **Quality of Underlying Asset**

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THANK YOU

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